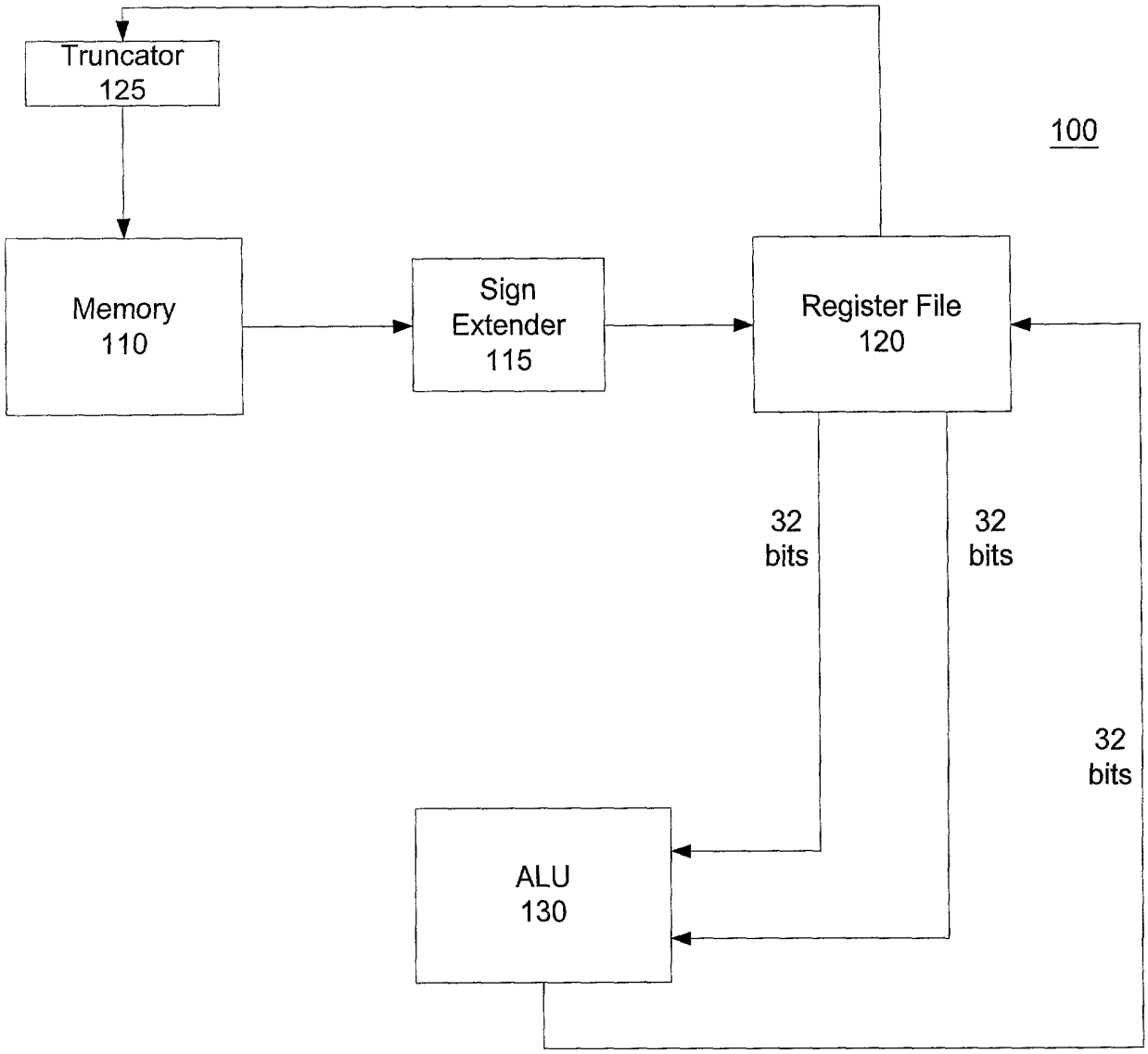
Truncator
125
100
Memory
110
Sign
Extender
115
Register File
120
32
bits
32
bits
32
bits
ALU
130

Figure 1A

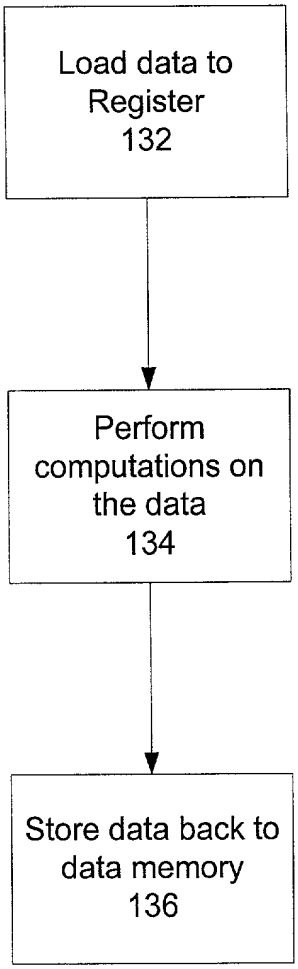
Load data to Register 132
Perform computations on the data 134
Store data back to data memory 136

Figure 1B

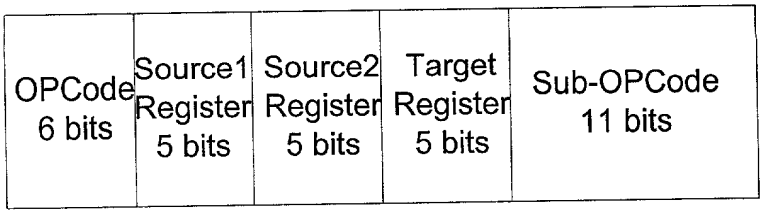

Figure 1C

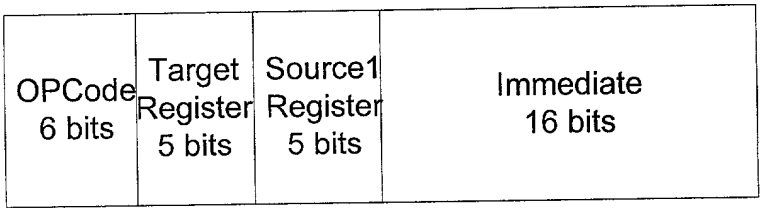

Figure 1D

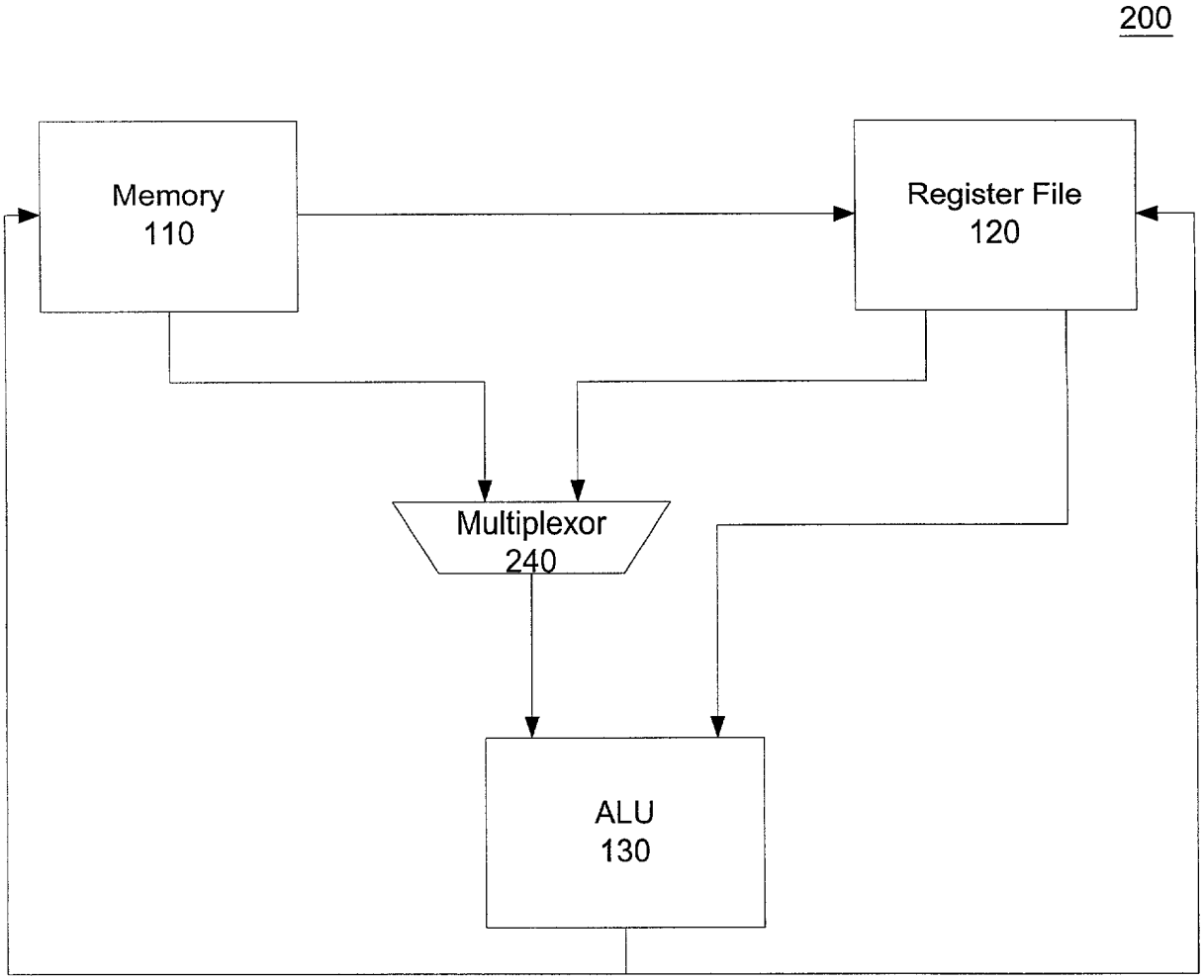

Figure 2

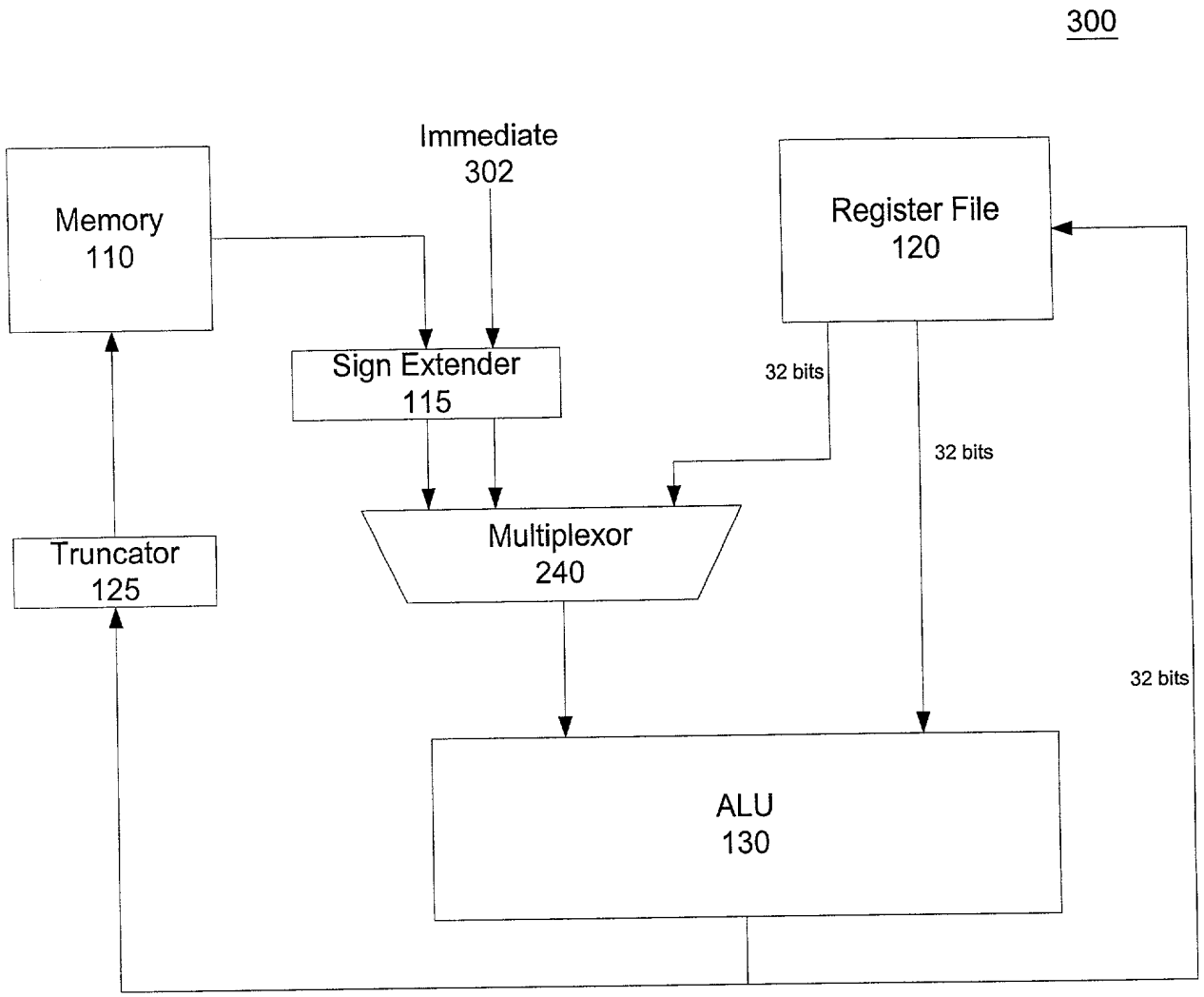
300
Immediate
302
Memory
110
Register File
120
Sign Extender
115
32 bits
32 bits
Multiplexor
240
Truncator
125
32 bits
ALU
130

Figure 3A

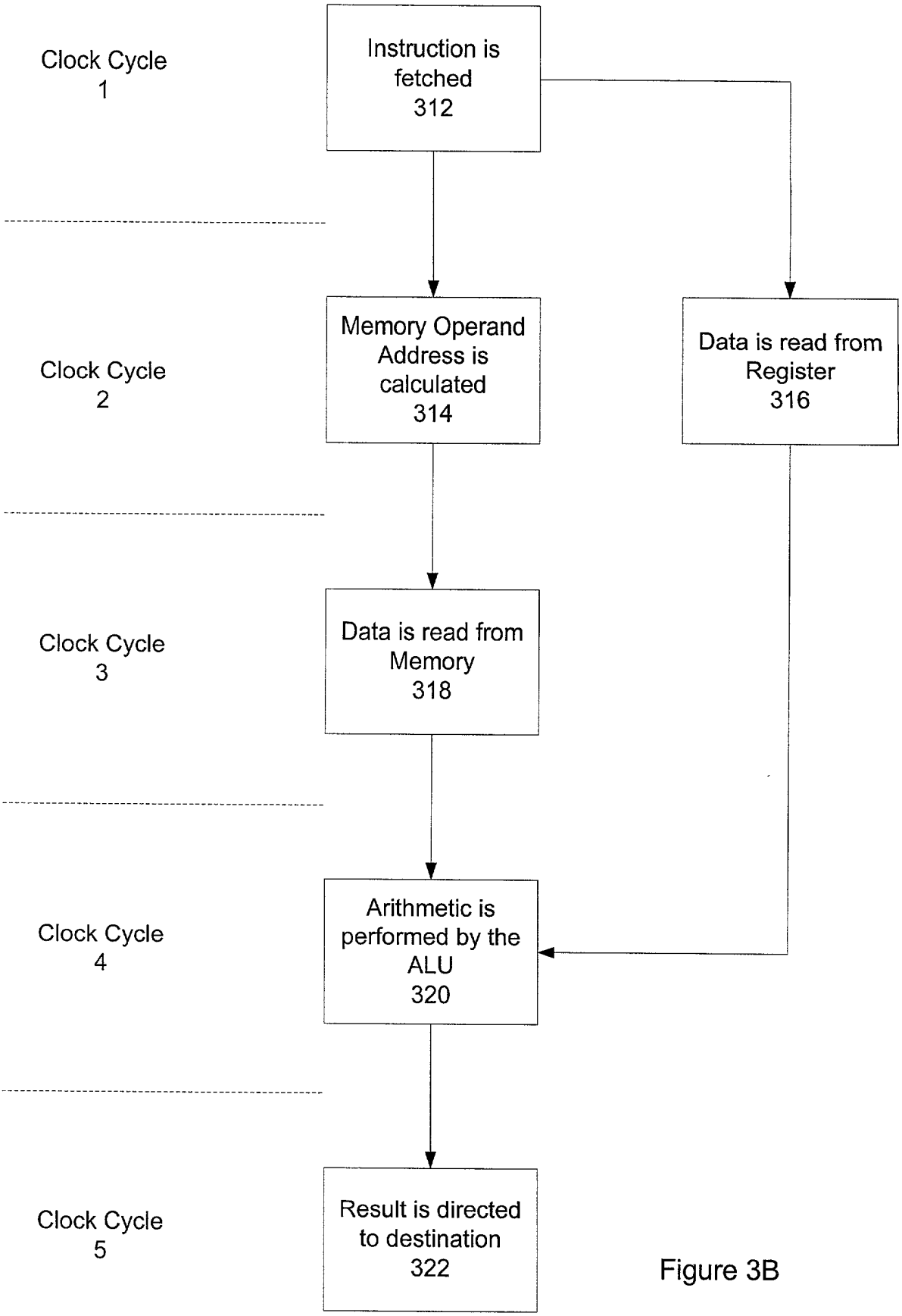

Figure 3B

400

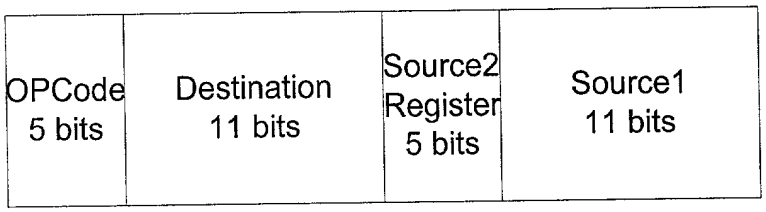

Figure 4

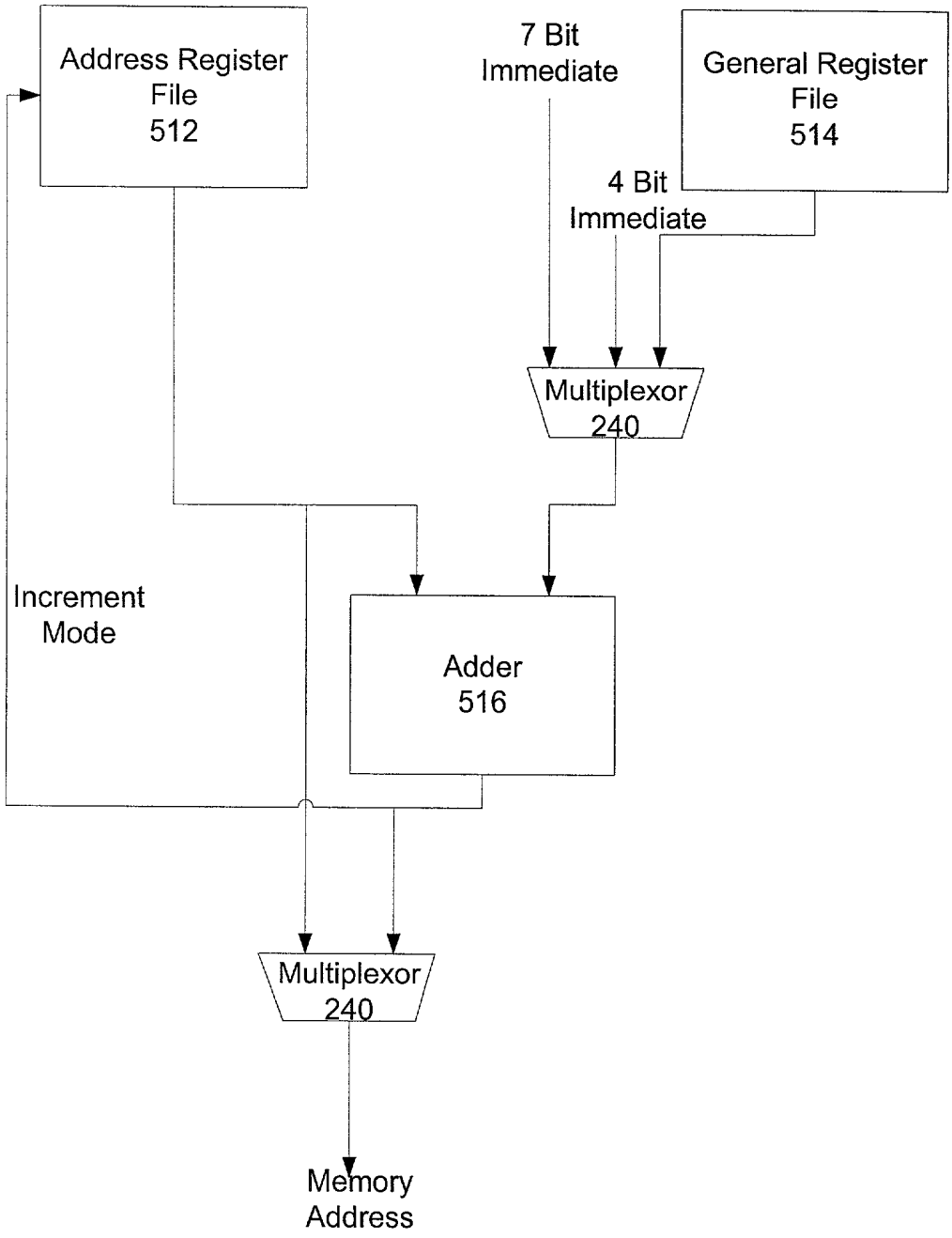
Address Register File 512
7 Bit Immediate
General Register File 514
4 Bit Immediate
Multiplexor 240
Increment Mode
Adder 516
Multiplexor 240
Memory Address

Figure 5

1	I_6	I_5	$A_2A_1A_0$	I_4	I_3	I_2	I_1	I_0	Row 1
0	1	1		R_4	R_3	R_2	R_1	R_0	Row 2
0	1	0		M	I_3	I_2	I_1	I_0	Row 3
0	0	1	Register Direct						Row 4
0	0	0	Immediate						Row 5

Figure 6

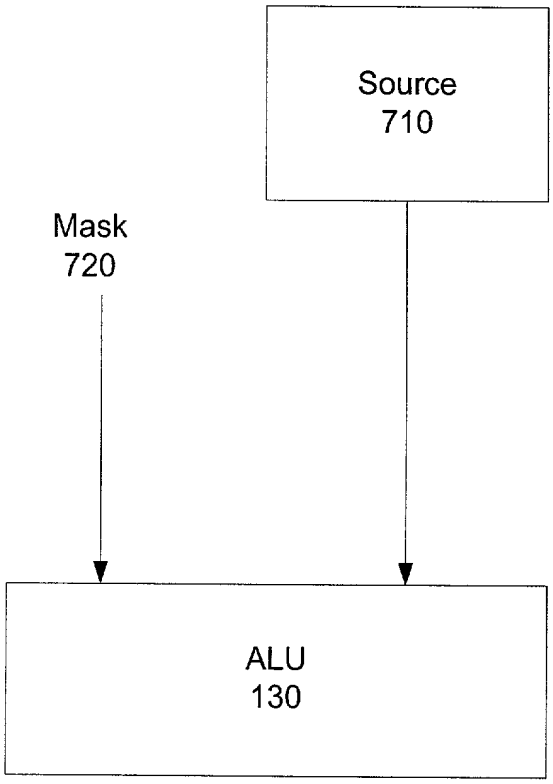

Figure 7

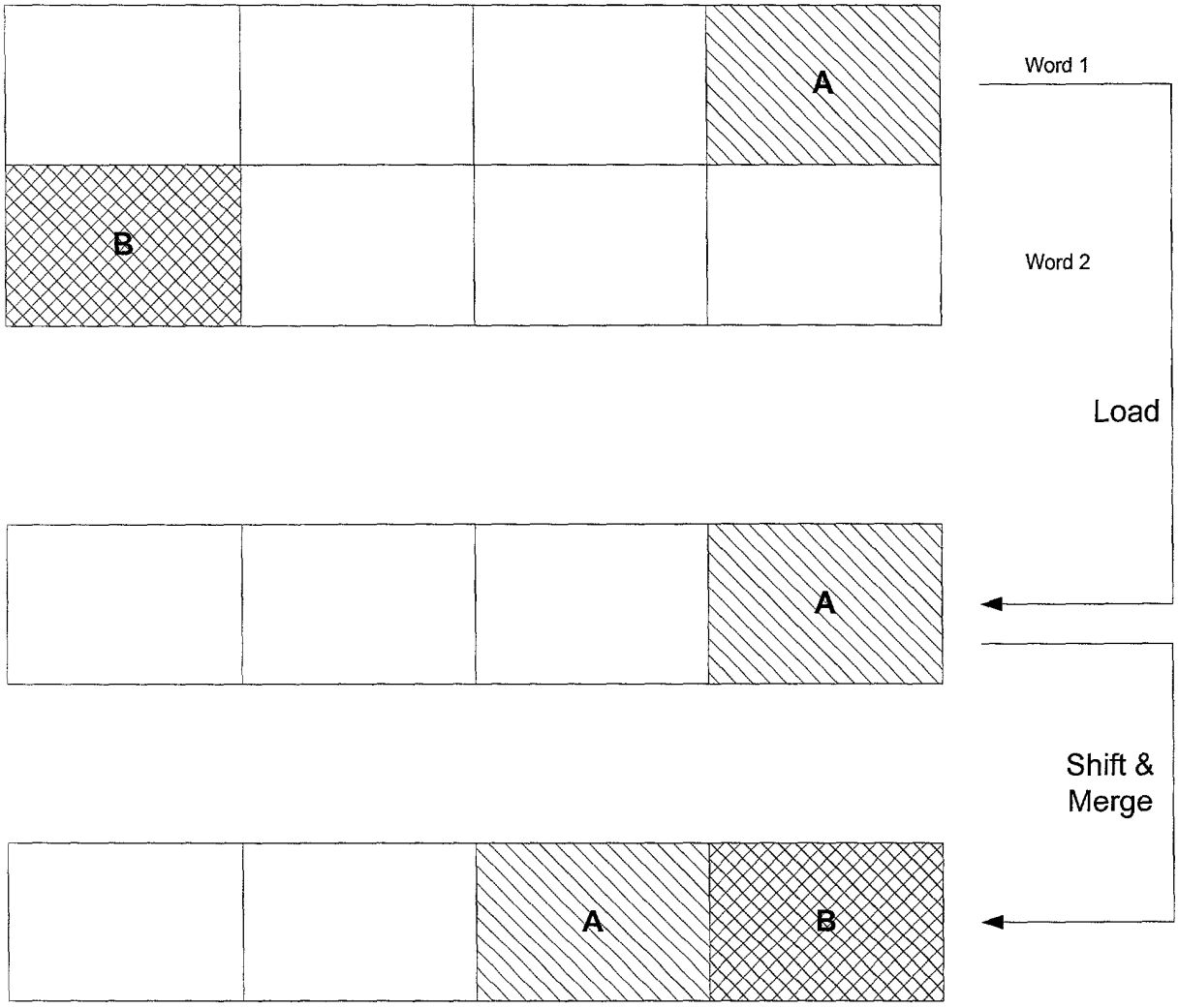

Figure 8

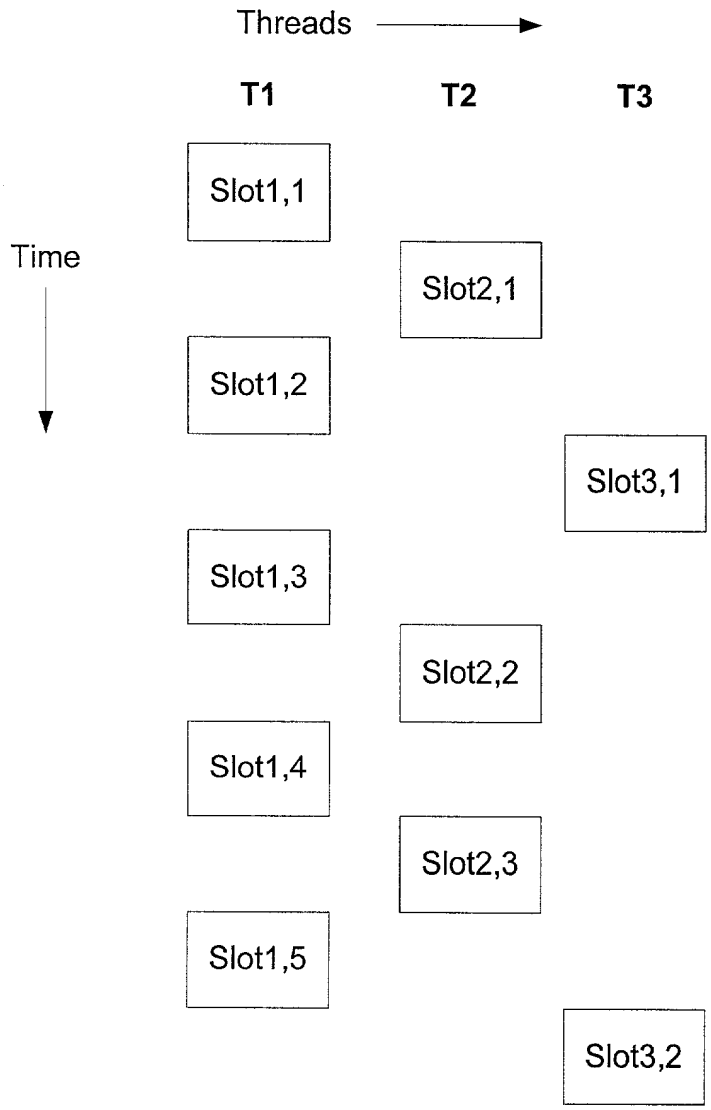

Figure 9